

49217

RSPA-98-4418-4

EXEMPTION EVALUATION FORM
(Revised as of May 20, 1998)

DEPARTMENT OF TRANSPORTATION

98 DEC 24 AM 9:12

DOCKET SECTION

PART 1 APPLICANT

1A. Application Number: 32640

Exemption Number : 12135

Project Officer : Cheryl West Freeman

1B. Date of Application: 8/24/98

1C. Name of Applicant:

Title:

Company Name: Daicel Safety Systems, Inc.

Address: Tokyo, Japan

Phone Number:

1D. U.S. Agent for foreign applicant or Consultant Name:

Stuart E. Hunt

Company name: Sonnenschein Nath & Rosenthal

Address: 1301 K Street, NW
Washington, DC 20005

Phone Number: (202) 408-6448

1E. Summary of What Applicant is Requesting:

To authorize the manufacture, marking and sale of non-DOT specification cylinders (pressure vessels) for use as components of automobile vehicle safety systems.

1F. Regulation(s) exempted: 49 CFR 173.301(h), and 173.302 and 173.306(d)(3) insofar as non-DOT specification cylinders are not authorized.

1G. Modes of Transportation:

1 Motor Vehicle (X)	2 Rail Freight (X)
3 Cargo Vessel (X)	4 Cargo Aircraft (X)
5 Passenger Aircraft ()	

PART 2 REVIEW FOR DOCKETING

- (X) Application contains sufficient information to support docketing.
- () Application is incomplete or unnecessary and should be returned for the following reason(s).

PART 3 HAZARDOUS MATERIALS

3A. Hazardous Materials to be shipped:

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Divisio n	Identi- ficatio n Number	Packing Group
Non-toxic, nonliquefied gases and mixtures thereof / Proper shipping name as specified in 49 CFR 172.101	2.1 or 2.2 as appropriate	As appropriate	N/A

3B. Is the hazardous material capable of being detonated? (If No - go to 3C) NO

If so, under what conditions?

- (1) What special precautions have been taken to prevent these conditions in transportation?
- (2) Has the hazardous material been classed as an explosive? _
 - Has it been tested and approved under § 173.56?
 - Is stabilization required and what type?

3c. Other risks presented by the material that warrant special assessment. (e.g. flammable or toxic gases produced upon contact with water, material can initiate or enhance a fire, article or device contains an ignition source) **NONE**

PART 4 PACKAGING

4A. Is the applicant seeking an exemption from the packaging requirements? **YES**
(If No - Go on to Part 5)

4B. ☐ Non authorized specification package.
☐ Authorized Specification package with quantity or size variation.
☐ Material change.
☐ Over authorized pressure.
☒ Non specification package. Most comparable spec. package. **DOT 39 cylinder**

4c. What are the possible failure modes of the packaging? **Leak or Rupture**

Is the material of construction appropriate? Yes

Will the packaging integrity be sufficient? Yes

In the case of a pressurized packaging, will the package adequately contain any pressure that might develop? Yes

Does packaging meet the performance requirements for air transportation? Yes

Have evaluation of tests results shown the package to be equivalent? **Tests to be certified by Authorized Testing prior to first shipment.**

4D. Are special handling measures needed (specify)? NO

PART 5 SPECIAL TRANSPORT AND INFORMATIONAL CONTROLS

5A. Is the applicant seeking an exemption from Special Transport and Informational Controls? (If No - go to Part 6) No

5B. Indicate control from which variance is sought. (i.e., placarding requirements, etc.)

5c. What controls have been offered or might be appropriate to mitigate risks otherwise presented with the exemption?

- 5D. What special data collection and reporting requirements are needed to document experience and exemption performance?

PART 6 SHIPPING EXPERIENCE

- 6A. What has the generally shipping experience been with this type of material, package, and operation? **Good, based on similar exemptions.**
- 6B. Can any rough estimate be made on the extent of the use of this exemption? How many shipments will be made and how much material will be transported? **Not known.**
- 6C. Is this a new package with no shipping experience? **Yes.**

PART 7 SAFETY AND RISK ASSESSMENT

- 7A. 49 CFR § 107.105(d) prescribes requirements for justification of an exemption through comparisons with established levels of safety and risk assessment. Has the applicant demonstrated equivalent levels of safety or provided an appropriate risk analysis? **Yes.**
- 7B. What are the hazards (worst case) posed by the proposed exemptions? What could go wrong? Are the risks significant? What is the degree of uncertainty as to likelihood or consequences? **This cylinder is very similar to the DOT 39 cylinder and has safety factors that are at least equivalent.**
- 7c. What are the benefits to the public and the applicant of granting the exemption? What trade-offs have been made? **The public will benefit because the cylinder is used in vehicle airbags**
- 7D. Does this exemption (and other similar exemptions) point to the need for possible regulatory changes? If so what other information is needed to support a regulatory change. **The regulations could be changed to allow for a higher pressure airbag inflator such as this one.**

PART 8 DOCKET COMMENTS/INFORMATION

- 8A. Date checked: 12/9/98

8B. Comments: NONE (If Yes, summarize)

8C. Has **CONFIDENTIAL** or **PROPRIETARY** information (49 CFR 107.5) been considered in this application? **YES**

PART 9 OVERALL EVALUATION 6 RECOMMENDATION

Provide standard of equivalency and rationale supporting equivalent level of safety or comment on additional requirements needed to establish equivalency. Include main issues, evidence (i.e. tests), and technical conclusions. See note in Part VI concerning confidential information.

Daicel Safety Systems, Inc. has requested an exemption in order to manufacture, mark, and sell cylinders that are used as components of automobile vehicle safety systems, such as airbag inflators. The regulations provide for airbag inflators, however, Daicel's type of cylinder is of a higher pressure and does not qualify to be shipped under the proper shipping name of airbag inflator, Class 9. Daicel's proposed cylinder is very similar to the DOT 39 cylinder as well as exemption cylinders such as TRW's DOT-E 11379, Breed Technologies' DOT-E 11993, OEA's DOT-E 11506, and Autoliv's DOT-E 11650.

It is recommended that this exemption be granted. The exemption will only go into effect following design certification by an independent inspection agency. According to Steve Hutchinson of Authorized Testing which is Daicel's IIA, the correct service pressure should have been 4560 psig rather than 4500 as shown on the original application. This has been reflected in the exemption.

Note: DHM-30 please provide a Competent Authority #.

Office of Hazardous Materials Technology (OHMT)

Office of Hazardous Materials Exemptions and Approvals (OHMEA)

Office: DHM-22.2

Project Officer/Date: Cheryl West Freeman 12/9/98

Reviewer/Date: _____

Office Director/Date: Charles W. Hoffman 12/1/98